Canadian Association of Physicists

Association canadienne des physiciens et physiciennes

Contribution ID: **27** Type: **Poster not-in-competition (Graduate Student) / Affiche non-compétitive (Étudiant(e) du 2e ou 3e cycle)**

POS-J105 – Dark matter, axion quark nugget, and mysterious bursts observed by telescope array

Wednesday 9 June 2021 14:35 (2 minutes)

Telescope Array experiment has recorded several short time bursts of air shower like events. These bursts are very distinct from conventional single showers, and are found to be strongly correlated with lightnings. We proposed these bursts represent the direct manifestation of the dark matter annihilation events within the so-called axion quark nugget model. We discuss how to test this proposal by searching for the radio signals in frequency band (0.5–200) MHz which must be synchronized with the Telescope Array bursts.

Authors: LIANG, Xunyu (The University of British Columbia); ZHITNITSKY, Ariel (University of British Columbia)

Presenter: LIANG, Xunyu (The University of British Columbia)

Session Classification: W-POS-J #80-107 Poster session (PPD) / Session d'affiches (PPD)

Track Classification: Particle Physics / Physique des particules (PPD)